



PORT OF MANCHESTER

ANNUAL REPORT

OF THE

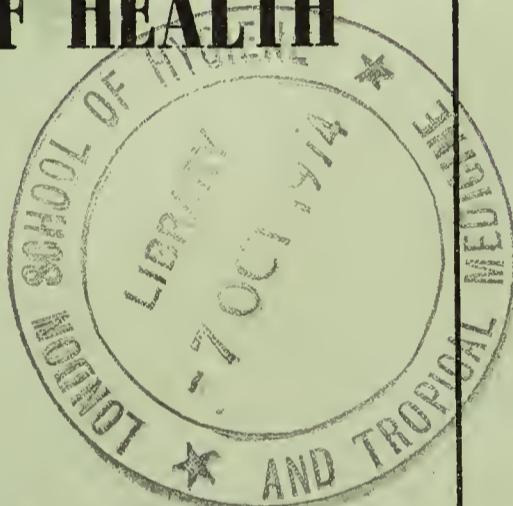
MEDICAL OFFICER OF HEALTH

TO THE

PORT HEALTH AUTHORITY

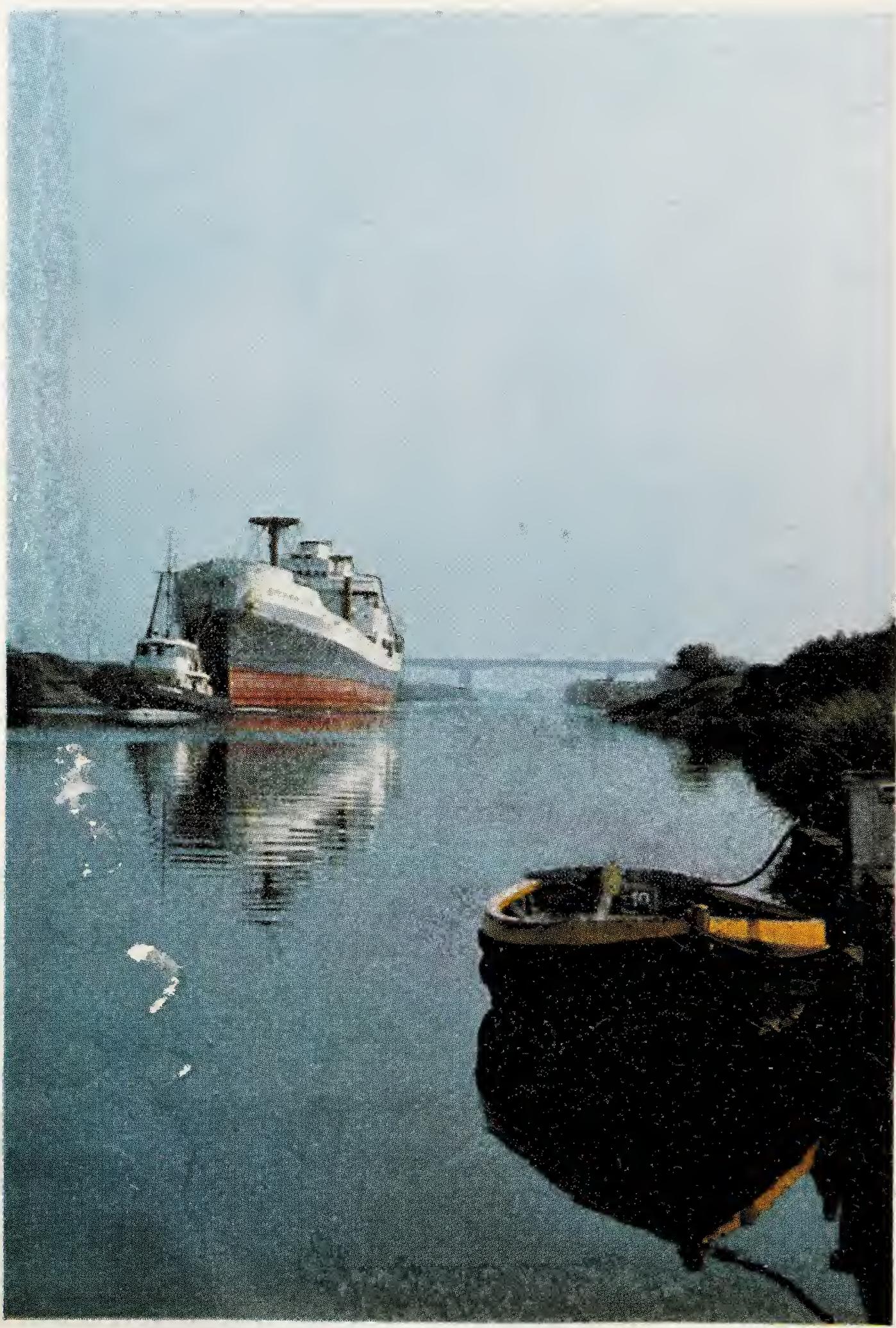
1973

KENNEDY CAMPBELL, M.A., M.D.  
Medical Officer of Health.







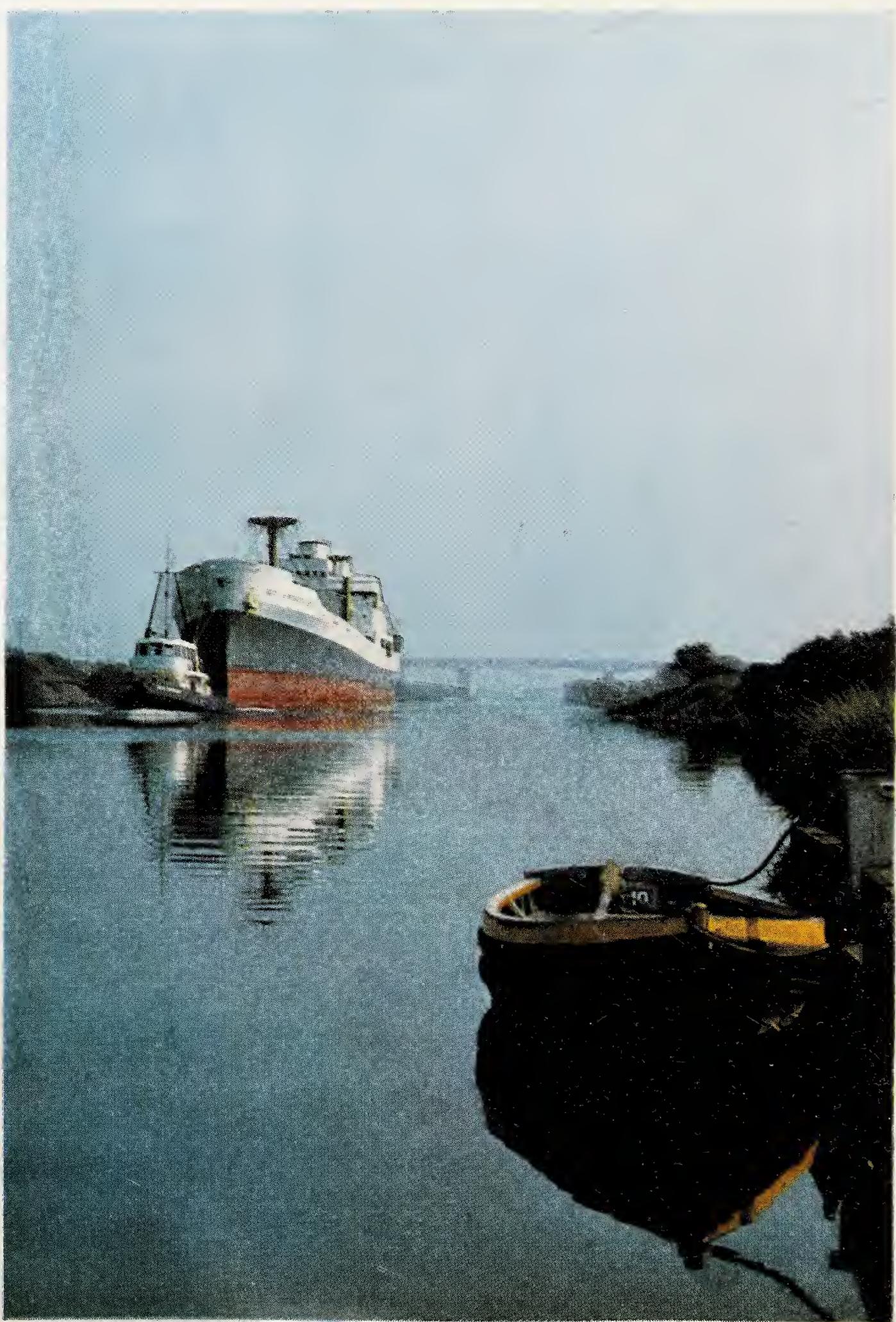


**M.V. "City of Worcester" outward bound with Thelwall Viaduct  
(M6 Motorway) in the background**

Photographed by Brian Vaughton

*With acknowledgment to the Port of Manchester (The Manchester Ship Canal Company)*





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# REPORT

by the

## Medical Officer of Health

to the

### CHAIRMAN AND MEMBERS OF THE PORT HEALTH AUTHORITY

I have pleasure in presenting my Report on the work of the Authority for the year 1973, in accordance with Regulation 12(4) of the Public Health Officers (Port Health Districts) Regulations 1959.

It is prepared in the form desired by the Secretary of State, and the statistical information is arranged in the form and sequence indicated in Form Port 20. Where the entry "No change" appears, it indicates that there has been no variation in the detailed information given in the annual report for 1971.

The Annual Conference of the Association of Sea and Air Port Health Authorities was held in Manchester in June 1973 and I was very pleased to have the opportunity of giving a paper entitled "Port Health in the Manchester Area". A copy of the paper is included in this report.

Mr. G. E. Stanley, port health inspector, based at Runcorn since 1946 retired in March and he was succeeded by a young lady, Miss V. K. Male, who I believe is the first such appointment in the United Kingdom. I should like to take this opportunity of recording my appreciation of the work carried out by Mr. Stanley, especially in respect of smoke control at the Queen Elizabeth II Dock, Eastham, before and after the Clean Air Act, 1956, came into operation.

A new office was opened on the docks at Runcorn in March and this should provide an improved facility for shipping and forwarding agents using this section of the port.

The Authority decided that a Chief Port Health Inspector should be appointed and Mr. P. Rotheram commenced his duties in April. His seafaring knowledge, together with his experience at London and Southampton Port Health Authorities should prove ideal for dealing with the many changes now taking place in the work of this Authority.

In a reassessment of the changing responsibilities of the Authority it was decided to adjust the establishment by appointing another port health inspector instead of replacing the rodent operative who resigned in April, 1972. The person appointed will commence duties in January, 1974.

Container traffic into Ellesmere Port continued to increase and the possibility of obtaining improved accommodation for the inspector to

cope with this increased trade is becoming a matter of considerable urgency.

The number of vessels inspected during the year totalled 2,040, a reduction of 555 compared with 1972. Unfortunately, one of the port health inspectors, Mr. J. Forbes, was absent on sick leave for over two months and this was a contributory factor in the decreased workload.

An outline of the work of the Authority was given to 15 student public health inspectors who attended at the office prior to their final examination.

I wish to record my appreciation of the assistance and co-operation of the Officers of H.M. Customs & Excise and the staff of the Manchester Ship Canal Company.

In conclusion I wish to express my thanks to the Chairman and Members of the Authority for their support and co-operation. I would also like to thank the staff for their invaluable work carried out during the year.

KENNEDY CAMPBELL

*Medical Officer of Health.*

Manchester Liners House,  
Trafford Road,  
Salford, M5 2XJ.

## MEMBERS OF THE PORT HEALTH AUTHORITY

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Alderman B. S. LANGTON, C.B.E., J.P. (Chairman)	}	County Borough of Manchester
Alderman SIR ROBERT THOMAS, J.P.		
Alderman J. TAYLOR, J.P.		
Councillor M. FLYNN		
Alderman A. ASHCROFT (Deputy Chairman) (until September 1973)	}	County Borough of Salford
Alderman Mrs. R. STONES (until September 1973)		
Councillor S. TURNER		
Councillor Mrs. M. WILLIAMS (until September 1973)		
Councillor G. WILCOCK, J.P. (from October 1973)		
Councillor T. WARRINGTON (from October 1973)		
Councillor B. WALLSWORTH (from October 1973)	}	Borough of Stretford
Councillor R. MOORES, J.P.		
Alderman Mrs. E. BODDAN	}	Borough of Eccles Irlam U.D.C. Urmston U.D.C.
Councillor G. H. DUTTON J.P. (Deputy Chairman from November 1973)		
Councillor W. C. FARRINGTON		
Councillor M. J. MOORE J.P.		
Clerk to the Authority.	}	J. B. D. HAYNES
Deputy Clerk to the Authority		

Clerk to the Authority.

J. B. D. HAYNES

Deputy Clerk to the Authority

R. D. BISHOP

## LIMITS OF THE PORT

The Customs Port of Manchester is defined under The Appointment of the Port of Manchester Order, 1956, and is an area bounded by a line—

- (1) commencing at the eastern termination of the port of Liverpool, namely at an imaginary straight line across the River Mersey from Dungeon Point on the Lancashire shore to Ince Ferry on the Cheshire shore;
- (2) including the River Mersey so far as the same is navigable, and so much of the Eastham Channel in the River Mersey and of the banks and foreshore thereof as is enclosed by an imaginary line drawn in the line of the dolphins on the east side of the Eastham Channel, and at a distance of five hundred and thirty-eight yards from the seaward extremity of the eighty feet lock at Eastham, an imaginary line to the foreshore at right angles to that line;
- (3) including the Manchester Ship Canal; and
- (4) including the River Irwell as far inland at Hunts Bank in the City of Manchester.

The port shall include all channels, canals, havens, streams, creeks cuts and docks within those limits, including the River Weaver as far inland as Frodsham Bridge.

## PORt HEALTH IN THE MANCHESTER AREA

*Paper delivered by Dr. Kennedy Campbell at the Annual Conference of the Association of Sea and Air Port Health Authorities held in Manchester, June, 1973.*

There are two areas in Manchester at which port health has to be exercised: the Manchester Ship Canal and Manchester Airport.

The Ship Canal has made Manchester one of the great ports of the world. While technically a canal, it is in fact an elongated harbour which provides extensive facilities for shipping and the essential requirements of large-scale industry in Manchester—an inland city. It has been said that the port transformed Manchester into one of the great cities of the world and that Manchester owes its rapid growth and eminence in the world of commerce—and, indeed, its very survival as a leading industrial centre—to the presence of the Canal. In the 1890's Manchester was in danger of declining into a second-rate city, and it was realised that something must be done rapidly to avoid this fate. One great disadvantage with Manchester's position was that it did not have access to a port of its own; a ton of goods could be carried from Manchester to Calcutta for 19/3d.; of this 12/6d. had been charged before the goods had left Liverpool; so heavy were Liverpool dock dues that ultimately spinners could buy cotton in Bremen or Havre, pay shipping freights to Hull and railway charges from Hull to Oldham and still save  $\frac{1}{4}$ d. a pound weight on the price they would have paid for the same cotton at Liverpool Docks.

The Ship Canal was opened to traffic on New Year's Day, 1894, and from that time it has been improved and extended—until it can today carry some of the heaviest traffic in Britain: the total tonnage passing along the Canal in 1972 was 16M tons.

The port is equipped with modern transit sheds and warehouses for general cargo. There is provision for bulk storage of liquids, cold storage and bonded accommodation. The container depot is one of the largest and best equipped in Europe. Inland transport costs for cargo shipped and discharged at the port can be appreciably less than at ports on the shipboard. It is at the hub of a large conurbation: within a radius of 75 miles of the port there is a population of approximately 16 $\frac{1}{2}$ M.

Due to the fact that the Canal runs 35 $\frac{1}{2}$  miles, it is obvious that certain difficulties in the control of health arise which are unique to the port. For one thing, the Canal passes through the lands of a large number of local authorities—all of whose riparian interests must be considered. Being by its nature low-lying, there is often the danger of smoke pollution to neighbouring communities, and there is always the very substantial danger of water pollution. The Canal is thus an intimate part of the lives of a large number of people, and in this it differs somewhat from the other ports in Britain: when something happens on the Canal, it is immediately obvious and immediately affects the population bordering the Canal.

It is sufficient to mention only a few of the activities carried out along the length of the Canal to make immediately apparent the nature

of health control in the area. At the Mersey estuary at Eastham the Queen Elizabeth II Dock forms the largest enclosed oil dock in the United Kingdom. Its four berths are linked by pipeline to many major oil companies and storage tank terminals, and the moving of additives and finished petroleum products is the main traffic. A few miles upstream is Ellesmere Port, where steel, chemicals and fertilizers are handled. There is also a container terminal for services to Italy and Portugal and a car terminal. Stanlow Oil Docks were specially built to serve the vast acreage of refineries, installations and tank farms which stretch as far as the eye can see. From here the Canal traverses the Cheshire coastline until it reaches Runcorn, where regular services operate to Finland, the Continent, the Channel Islands and the Mediterranean. Runcorn itself is the site of a new town with a large population. Passers-by are often astounded at the sight of an ocean-going vessel sailing through the Cheshire countryside, but this is often the case. The Canal now goes through Stockton Heath, Warrington and Lymm and up to the Partington Basin, where bulk liquid chemicals, petroleum products and oil are handled and there is a large-scale industrial development. From there the Canal passes upwards to the main Manchester Docks, where there are bulk discharging terminals and on the south bank the Trafford Park Industrial Estate—which is the largest in Europe. The terminal docks cover an area of 700 acres, and the largest dock is over half-a-mile in length. The container terminal serves Manchester Liners' container service between the United Kingdom and Canada. There is a weekly service to Montreal by a fleet of six 12,000-ton vessels—which can be turned round within forty-eight hours. So it will be seen that the Canal encompasses along its length all the problems which are found in the ports of Britain and indeed some that are unique to Manchester.

I now come to the sanitary administration of the Canal. It will be obvious from what I have said that different sections of the Canal pose different problems, and the inspectorate are therefore specially qualified in each of the fields in order to be able to deal with them as they arise. I will speak of smoke control and water pollution shortly, but while ships traverse the Canal, we have, of course, to take note of the state of them—their cleanliness and the adequacy of living quarters and whether or not there is vermin infestation. As large quantities of foodstuffs are unloaded at the terminal docks, there has to be a twenty-four-hour inspectorate service concerning itself with the purity and wholesomeness of foodstuffs.

Speaking generally, the condition of ships does not give us very great concern. A large number of the ships using the Manchester Canal are foreign owned and the standard of accommodation and cleanliness is good. Some of the British coastwise trading vessels are not so good, and difficulties often arise with this class of vessel. However, with the co-operation of our colleagues at the other ports around Britain, it is fairly easy to make sure that any deficiencies are made good within a reasonable time.

Food inspection, as I have said, forms a most important part of our duties. One particular product has given us cause for concern over a period of years: tomato products come through the port in large quantities

because there is a world-famous manufacturing firm based a few miles from Manchester which uses very large quantities of tomato paste and purée. We have found that these products, which come from different parts of the world, are of varying qualities and that there is frequently a substantial growth of mould when sampling takes place. We found it surprising when this first came to our notice that there was no British or international standard fixed for these products, and here in Manchester we have fixed our own. This has now been generally accepted throughout the country, and we are trying to get it standardised internationally through the World Health Organisation—it may in fact be easier now that Britain is part of the European Economic Community.

I have spoken of smoke and water pollution. Quite recently a ship discharging oil at the top end of the Manchester Canal allowed some spillage to occur. This travelled down a considerable distance of the Canal and by pure chance was ignited. There was a violent explosion along a sizeable portion of the waterway, with resulting injury and death. Any pollution—whether it be by animal or mineral product—becomes immediately noticeable along the length of the Canal, and therefore particular attention is paid to making sure that this does not happen. Smoke pollution can be troublesome—and, here again, legislation which governs the control and emission of smoke is weak. The Clean Air Act does not seem to have envisaged such a situation as the Ship Canal, and it is very difficult indeed to enforce the provisions of the Act.

Smoke from vessels proceeding along the Canal presents a most serious problem. The chief offenders are the aged, smaller vessels. These craft are fitted with hand-fired, natural-draught coal boilers, sometimes poorly maintained and often manned by inexperienced or careless firemen using unsuitable coal. In fairness, however, to the engine-room personnel of these craft, it should be realised that they often work in cramped spaces and seldom have suitable instruments for aiding efficient combustion.

Oil-fired vessels in transit are occasional smoke offenders, but, as with all moving vessels, no positive action can be taken at the time except observation and verbal communication. The matter is usually taken up when the ship has docked.

In the recording of accurate smoke observations the following points are essential:

1. The top of the funnel must be visible against a clear sky.
2. The observer should be positioned so as to watch smoke blowing along the line of vision.
3. Care must be taken to allow for existing light and to avoid the effect of the sun on the smoke schedule.

In respect of vessels alongside, it is not always possible to satisfy these requirements. In crowded dock systems observations may be impeded by sheds, cranes or other vessels, and the observer may have difficulty in obtaining a suitable vantage point.

With moving vessels the position is even more complicated: doubt is often cast upon the use of binoculars for the purpose of observation,

and in narrow waters like the Canal, vessels soon pass a fixed point. This means that observations are of short duration. Clear observation may be obstructed by the terrain, dockside buildings and the lack of mobility.

Whilst observations can be carried out and smoky vessels memorised with experience, due appreciation of the difficulties of the problem have to be realised by all concerned.

One of the greatest difficulties in the operation of the Clean Air Act seems to be that the offence of smoke emission lies against the master of the vessel, and unless the vessel is in port for a sufficiently long period to enable the prosecution to bring a case against the master, then it is almost impossible to prove a case. We find that the masters of foreign vessels are frequently changed, and the Department of Trade and Industry is reluctant to initiate actions in foreign countries in case there may be counter-reprisals against British shipping. One further point requires to be made: when the offence is brought speedily to court and a master is indicted, then the resulting monetary fine is so trivial in comparison with the running costs of the ship that most companies tend to disregard it—there is no financial inducement on them to mend their ways. All these points need to be improved, with methods of bringing offending vessels to court and for imposing substantial monetary penalties, before we can hope to rectify matters.

Manchester Airport had its beginnings during World War I, when the Government turned open fields at Alexandra Park into a training base for pilots. After the War the Council bought land at Rackhouse, along Wythenshawe Park, as a temporary aerodrome and borrowed money to convert Chat Moss, near Eccles, into Barton Aerodrome. In 1929 Rackhouse was licensed by the Ministry, and Manchester therefore became the first local authority to provide and control an airport.

Barton was opened the following year, but within a short time it became obvious that the airport was unsuitable for the longer length 'planes then being built. The Council decided, by one vote, to buy four hundred acres of farmland at Ringway as an alternative to Barton, and construction was commenced. Ringway Airport was opened in 1938 and was re-opened for civil use at the end of the Second World War. Since then it has been developed and extended at regular intervals, and in 1972 over  $2\frac{1}{4}M$  passengers were handled, along with 40,000 tons of freight: there were more than 60,000 aircraft movements.

Manchester Airport can handle any 'plane flying, including the Jumbo Jets, but knowing that larger and faster aircraft are being considered, vast new developments for handling passenger and freight traffic are in hand.

The problems associated with this developing traffic do not pass the sanitary control unnoticed. The handling of such a large volume of traffic requires round-the-clock medical and sanitary supervision, and the fact that Manchester has been designated the alternative to London Heathrow Airport for diversion traffic makes the problem one of great difficulty. In any year there is a substantial number of aircraft diversions from London Airport; most of them are at very short notice, and many

of them are in fact circling the airport or coming in to land before Health Control is given a warning. As the majority of these aircraft have passed through or have touched down in infected areas, it will be appreciated that this poses problems for the staff involved. In addition, most of them arrive during the middle of the night—which does not make matters any easier.

The work carried out at the airport can be categorised into three sections:

- (a) general sanitary control;
- (b) the medical inspection of Commonwealth immigrants and aliens; and
- (c) health control and the checking of international certificates.

For the purpose of the medical inspection of Commonwealth immigrants and aliens, six doctors from the Health Department, together with twelve part-time general practitioners, are on a rota, and they are assisted by several administrative staff. For health control, administrative staff are available, together with the Principal Medical Officers of the Health Department.

For the purposes of general sanitary control, the medical and sanitary officers of the Health Department are immediately available.

The airport does not differ very much from the Canal, in that control of infection, smoke pollution, noise pollution, cleanliness of food and the disinfection and disinfestation of ships and aircraft have much in common.

The control of infection is, of course, immediately obvious, and smallpox especially lays heavy burdens on the staff. In recent weeks there have been several alarms—fortunately false, but nevertheless involving a considerable amount of work by the staff, and there is always the odd problem of some vague illness in a passenger who has come from abroad and where the diagnosis can be obscure.

Manchester Airport is a central departure point for all the internal and international airlines, and therefore many of the aircraft are serviced with food from the airport. Thus a watch has to be kept on the preparation and handling of food in order to ensure that it is safe to be eaten on board the aircraft.

When aircraft are considered to have carried infectious disease, they have to be disinfected—and maybe disinfested. For this purpose the aircraft is isolated on the tarmac, and sanitary staff carry out the necessary procedures, but it often happens that modern transport is such that the aircraft has left Manchester, gone to another destination and returned to Manchester before it is realised that it requires attention.

Smoke pollution and noise pollution are, of course, becoming matters of growing concern amongst the community, especially amongst those persons living in close proximity to international airports. Modern jets are noisy and smoky, and there is always a fine balance between the control of noise and smoke and safety procedures for the aircraft and its passengers. By virtue of the speed of the aircraft, noise and smoke

observations have to be very rapid and accurate, and there is often considerable dispute as to the actual findings of the observations.

The Jumbo Jets especially pose problems in that they carry very large numbers of passengers and modern airports are not usually designed to cope with these large numbers at a given time. Manchester is therefore in the process of completing extensive additions to its airport buildings which will be more than adequate to deal with these numbers in future. The opportunity has been taken to incorporate a modern medical suite which will be able to handle any of the medical problems that will arise in the foreseeable future; this will probably include the x-ray of passengers for chest diseases, and certainly includes adequate isolation accommodation for persons suspected of having infectious disease.

**SECTION I: Staff Changes****TABLE A**

<i>Name of Officer</i>	<i>Nature of Appointment</i>	<i>Date of Appointment</i>	<i>Qualifications</i>	<i>Other Appointments</i>
P. Rotheram	Chief Port Health Inspector	9th April, 1973.	Diploma—P.H.I.E.B. Master Mariner	—
G. E. Stanley	Port Health Inspector	1st October, 1946 Retired 15th March, 1973	Cert. R.S.I. Meat & Other Foods Cert. Master Mariner	—
F. A. Denny	Port Health Inspector	1st January, 1969 Resigned 18th April, 1973	Diploma—P.H.I.E.B.	—
Miss V. K. Male	Port Health Inspector	1st March, 1973	Diploma—P.H.I.E.B.	—

Address and Telephone No. of the Medical Officer of Health:

Manchester Liners House, Trafford Road, Salford, M5 2XJ.  
(061-872 1714 and 2075).

Branch Offices:

The Docks, Runcorn (092 85 72919)  
The Docks, Ellesmere Port (051-355 2961)

**SECTION II: Amount of shipping entering the district****TABLE B**

Ships from	Number	Tonnage	Number inspected		Number of ships reported as having or having had, during the voyage, infectious disease on board
			By the Medical Officer of Health	By the port health inspectors	
Foreign ports	2,388	4,638,903	1	1,598	1
Coastwise ..	2,788	2,464,845	—	442	1
Total .....	5,176	7,103,748	1	2,040	2

Thirty-three vessels bound for Manchester were given radio clearance by Liverpool Port Health Authority.

"Foreign" excludes ports in the Irish Republic.

**SECTION III:**  
**Character of shipping and trade during the year**

**TABLE C**

**Passenger Traffic**

Number of passengers ARRIVALS:	127
Number of passengers DEPARTURES:	248

**Cargo Traffic**

**Principal IMPORTS:**

Petroleum, grain, ores, woodpulp, chemicals, paper and newsprint, motor cars, non-ferrous metals, sand and gravel, timber, sulphur (liquid and dry), foodstuffs, iron and steel, beverages, asbestos, cotton, rubber, clay, animal and vegetable oils and fats.

**Principal EXPORTS:**

Petroleum, chemicals, textile fibres, coke, salt, machinery, motor cars, foodstuffs, vehicles, metal and metal manufactures.

Total traffic, 1973: 16·7 million tonnes

Total traffic, 1972: 16·3 million tonnes

## PRINCIPAL PORTS FROM WHICH SHIPS ARRIVE:

Belgium .. . . . .	Antwerp and Ghent.
Brazil .. . . . .	Rio de Janeiro.
Canada .. . . . .	East & West Coast and Great Lakes ports
Ceylon .. . . . .	Colombo.
Colombia .. . . . .	Cartagena.
Cyprus .. . . . .	Limassol and Famagusta.
Denmark .. . . . .	Copenhagen and Esbjerg.
East Africa .. . . . .	Beira, Dar-es-Salaam, Lourenco Marques and Mombasa.
Eire .. . . . .	Cork, Drogheda, Dublin and Wicklow.
Finland .. . . . .	Hamina, Helsingfors, Kotka, Mantyluoto and Raumo.
France .. . . . .	Le Havre, Pauillac, Paris and Rouen.
Germany .. . . . .	Bremen and Hamburg.
Greece .. . . . .	Piraeus.
Iceland .. . . . .	Reykjavik.
India .. . . . .	Bombay and Calcutta.
Israel .. . . . .	Haifa and Ashdod.
Iraq .. . . . .	Basra.
Italy .. . . . .	Salerno, Spezia and Vado.
Lebanon .. . . . .	Beirut and Tripoli.
Netherlands .. . . . .	Amsterdam and Rotterdam.
Netherlands West Indies .. . . . .	Aruba and Curacao.
North Africa .. . . . .	Algiers and Casablanca.
Norway .. . . . .	Bergen, Christiansand, Frederickstad, Haugesund, Oslo, Skien, Stavanger and Trondheim.
Pakistan .. . . . .	Karachi.
Peru .. . . . .	Cabo Blanco.
Poland .. . . . .	Gdansk, Gdynia and Szczecin.
Portugal .. . . . .	Leixoes, Lisbon and Setubal.
Roumania .. . . . .	Constantza.
Russia .. . . . .	Archangel, Leningrad and Novorossisk.
Sardinia .. . . . .	Sarroch.
South Africa .. . . . .	Durban, East London and Port Elizabeth.
Spain .. . . . .	Seville.
Sweden .. . . . .	Gefle, Gothenburg, Helsingborg, Hellevik, Karlstad, Norrkoping, Stockholm and Sundsvall.
Trinidad .. . . . .	Point Fortin and Port of Spain.
Turkey .. . . . .	Iskenderun, Istanbul and Izmir.

Principal ports from which ships arrive—*continued*

United Kingdom .. . .	Belfast, Douglas, Fawley, Glasgow, Larne, Liverpool, London, Londonderry, Mostyn and South Wales ports.
United States of America	Atlantic, Gulf, Great Lakes and Pacific ports.
Venezuela .. . . .	Amuay Bay, Las Piedras, Puerto la Cruz and Punta Cardon.
West Africa .. . . .	Bathurst, Dakar, Freetown, Lagos, Monrovia, Port Harcourt and Takoradi.
Yugoslavia .. . . .	Rijeka.

#### SECTION IV: Inland barge traffic

##### Numbers and tonnage using the district, and places served by the traffic

Lighterage services are operated between points on the Ship Canal and also to adjoining waterways including the Bridgewater Canal, the River Weaver and Weaver Navigation and the River Mersey to Liverpool. The Bridgewater Canal joins the Leeds and Liverpool Canal to the north and the Trent and Mersey Canal to the south.

No canal boats were inspected during the year.

#### SECTION V: Water supply

##### (1) Source of supply for (a) the district and (b) shipping

(a) Piped water supplies are provided by the respective water undertakings abutting the ship canal.

(b) Fresh water is obtainable direct from hydrants in Manchester Docks and on the quays, wharves, etc., between Mode Wheel and Barton Locks, Partington, Latchford Locks, Warrington Lay Bye, Runcorn, Weston Point, Stanlow Lay-Bye, Stanlow Oil Dock, Ellesmere Port, Eastham Locks, and the berths in Queen Elizabeth II Dock, Eastham.

(2) *Reports of tests for contamination for (a) the district and (b) shipping.*

(a) the district:—

Two samples taken from a cabin tap at Barton locks were found to be satisfactory—one sample was submitted for chemical analysis and one for bacteriological examination. Following a complaint, a sample was taken from a tea-vending machine on the terminal dock premises and submitted for chemical analysis; it was satisfactory. A further sample obtained from a stand pipe tap at Ellesmere Port was found to be bacteriologically satisfactory.

(b) Shipping:—

	No. of ships involved	No. of samples taken	No. satisfactory	No. unsatisfactory	TOTAL
Distribution aboard ships	19	51	47	4	51
Storage aboard ships .....	—	—	—	—	—

Ten samples submitted for chemical analysis, forty-one for bacteriological examination (4 unsatisfactory).

Steps were taken immediately on receipt of unsatisfactory reports to ensure that water tanks were cleaned without delay. When the reports came to hand whilst the vessels were still in port appropriate action was taken prior to sailing. Samples for bacteriological examination from vessels at the Ellesmere Port end of the port were forwarded to the Public Health Laboratory, Chester.

Copies of reports of water samples taken on British ships were forwarded to the Marine Survey Office, Department of Trade and Industry, Liverpool.

(3) *Precautions against contamination of hydrants and hosepipes.*

*Weston Point and Runcorn*

Defective conditions in respect of equipment and hydrants were brought to the notice of the managements concerned and received attention.

(4) *Number and sanitary condition of water boats, and powers of control by the authority*

A barge, "M.S.C. 43", is used on the ship canal for the conveyance of fresh water to dredging craft. The boat is fitted with an after-tank and the attention of the Manchester Ship Canal Co. had to be drawn to the dirty condition of the tank. As a result it was cleansed, cement washed and chlorinated.

**SECTION VI:****Public Health (Ships) Regulations, 1970****(1) List of infected areas.**

*Arrangements for the preparation and amendment of the list, the form of the list, the persons to whom it is supplied, and the procedure for supplying it to those persons.*

A list of such areas is compiled by the Medical Officer of Health, Liverpool Port Health Authority. Copies are forwarded by post to H.M. Customs and Excise, Eastham, and also handed to the Waterguard Department and to inspectors of this Authority. The list comprised of the following ports:

Dar-es-Salaam and West African ports between latitude 20°N and 20°S.

All ports in: Bangladesh, Brazil, Burma, Cambodia, China, Colombia, Ethiopia, India, Indonesia, Pakistan, Sudan and Vietnam.

**(2) Radio messages.** No change.**(3) Notifications otherwise than by radio.** No change.**(4) Mooring stations.** No change.**(5) Arrangements for:**

(a) Hospital accommodation for infectious diseases.

(b) Surveillance and follow-up of contacts.

(c) Cleansing and disinfection of ships, persons, clothing and other articles.

No change.

Maritime Declarations of Health are supplied to masters of vessels by officers of H.M. Customs and inspectors of the Port Health Authority. One thousand four hundred and fifty-four declarations were received.

## SECTION VII: Smallpox

(1) *Names of isolation hospitals to which cases are sent from the district.*

Ainsworth Hospital, Bury.  
Sankey Hospital, near Warrington.

(2) *Arrangements for transport of such cases to hospital by ambulance, giving the name of the authority responsible for the ambulance and the vaccinal state of the ambulance crews.*

The ambulance services of the County Boroughs of Liverpool and Manchester would be available. The ambulance authorities require annual re-vaccination of all persons who may handle smallpox patients, suspects or contacts.

(3) *Names of smallpox consultants available.*

Dr. A. G. Ironside, Monsall Hospital, Manchester M10 8WR.  
Professor Andrew B. Semple, Hatton Garden, Liverpool L3 2AW.

(4) *Facilities for laboratory diagnosis of smallpox.*

Department of Medical Microbiology, University of Liverpool.

### SECTION VIII: Venereal disease

Details of facilities available for seamen in Manchester and Salford are as follows:—

(1) St. Luke's Clinic, Duke Street, Liverpool Road, Manchester M3 4NJ.

Monday:	10 a.m. to 12.30 p.m.	2 p.m. to 4.30 p.m.
Tuesday:	10 a.m. to 12.30 p.m.	2 p.m. to 6.30 p.m.
Wednesday:	10 a.m. to 12.30 p.m.	2 p.m. to 4.30 p.m.
Thursday:	10 a.m. to 12.30 p.m.	2 p.m. to 4.30 p.m.
Friday:	10 a.m. to 12.30 p.m.	2 p.m. to 6.30 p.m.
Saturday:	10 a.m. to 11.30 a.m.	

(2) Manchester Royal Infirmary, Oxford Road, Manchester M13 9WL.

Monday:	4.30 p.m. to 6.30 p.m.
Wednesday:	2 p.m. to 6.30 p.m.

(3) Hope Hospital, Eccles Old Road, Salford M6 8HD.

Wednesday: 10 a.m. to 12 noon.

The undermentioned information has been supplied by Dr. Leslie Watt, Physician-in-Charge, St. Luke's Clinic, Manchester, in respect of seamen attending St. Luke's clinic:

Condition:	British seamen	Foreign seamen	
Syphilis .. .. .. ..	1	1	
Gonorrhoea .. .. ..	5	12	
Other conditions .. ..	31	60	
Attendances .. .. .. ..	89	127	

**SECTION IX: Cases of notifiable and other infectious  
diseases on ships**

**TABLE D**

Category	Disease	Number of cases during the year		Number of ships concerned
		Passengers	Crew	
Cases landed from ships from foreign ports	—	—	—	—
Cases which have occurred on ships from foreign ports but have been disposed of before arrival	Tuberculosis	—	1	1
Cases landed from other ships	—	—	—	—

**SECTION X: Observations on the occurrence  
of malaria in ships**

One case of malaria was removed to hospital at Liverpool from a coastal vessel bound for Stanlow.

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**SECTION XI: Measures taken against ships  
infected with or suspected for plague**

No plague-infected or suspected ships arrived.

## SECTION XII: Measures against rodents in ships from foreign ports

### (1) Procedure for inspection of ships for rats.

Special attention is given to vessels arriving from infected ports. Details of action necessary to deal with any rodent infestations are given to the master and ship's agent.

### (2) Arrangements for the bacteriological or pathological examination of rodents, with special reference to rodent plague, including the number of rodents sent for examination during the year.

No rats from vessels were submitted to the Public Health Laboratory for examination.

### (3) Arrangements in the district for deratting ships, the methods used, and, if done by a commercial contractor, the name of the contractor.

Deratting of vessels prior to the issue of a deratting certificate has been effected by poisoning or fumigation. The necessary work was carried out by Rentokil Ltd., Birkenhead, under the supervision of the port health inspectors.

### (4) Progress in the rat-proofing of ships.

The standard of rat-proofing on new vessels is highly satisfactory. The owners of older vessels have readily complied with any recommendations made for the improvement of rat-proofing.

TABLE E

*Rodents destroyed during the year in ships from foreign ports.*

Black rats	..	..	..	..	..	..	..	..	..	..	14
Mice	..	..	..	..	..	..	..	..	..	..	—
Rats sent for examination	..	..	..	..	..	..	..	..	..	..	—
Infected with plague	..	..	..	..	..	..	..	..	..	..	—

### RODENT CONTROL

		Foreign	Coastwise
Visits by inspectors	..	1589	451
Re-visits by inspectors	..	656	35
Visits by rodent control operative (Section B)	..	528	187
Re-visits by rodent control operative (Section B)	..	481	22
Rats killed (Section A)	..	3	—
Rats killed (Section B)	..	11	4

TABLE F

*Deratting certificates and deratting exemption certificates issued during the year for ships from foreign ports.*

Deratting certificates issued:		Total	Deratting exemption certificates issued	Total certificates issued
After fumigation with HCN	After treatment with alphachloralose			
—	2	2	248	250

The Masters of two vessels were found in possession of Deratting Exemption Certificates issued at non-approved ports—Limon, Costa Rica, and Assab, Ethiopia. Details were forwarded to the Department of Health and Social Security.

#### PREVENTION OF DAMAGE BY PESTS ACT, 1949

#### PREVENTION OF DAMAGE BY PESTS (APPLICATION TO SHIPPING) ORDER, 1951-56.

Rodent control certificates issued ..... nil

	Barges	Floating elevators	Dredgers	Tugs
Visits by inspectors (Section A) ....	57	—	2	1
Visits by rodent control operative (Section B) .....	74	39	—	—

#### Terminal docks

Visits were made to various parts of the dock estate to ascertain the degree of rodent infestation. Treatment was carried out whenever necessary.

#### Runcorn/Weston Point

The position was kept in mind at all times and it was repeatedly necessary to draw the attention of the management to the unsatisfactory and dirty conditions of the sheds and quays. The main rodent problem occurs on the open ground adjacent to the transit sheds; this is a recurring problem, particularly at Weston Point, due to the failure to remove accumulations of waste material at regular intervals. Runcorn U.D.C. are contracted to carry out treatment as required.

213 rats and 9 mice were caught on the terminal docks. Twenty-three rats were submitted to the Public Health Laboratory for examination—no evidence of plague infection but salmonellae organisms found in two rats.

On the Manchester Ship Canal Company property at Ellesmere Port 67 campaigns using zinc phosphide, arsenic and warfarin were carried out. An estimated kill of 90 rats was recorded in respect of those campaigns carried out involving the use of zinc phosphide and arsenic.

In the Runcorn and Weston Point docks area 88 visits were made by the rodent operator and 14 rat and 1 mice infestations were found.

The co-operation of the Chief Public Health Inspectors of Ellesmere Port and Runcorn in effectively controlling any rodent infestation on property abutting the canal in their districts is much appreciated.

### SECTION XIII: Inspection of ships for nuisances

TABLE G

*Inspections and Notices*

	Inspected	Defective	Statutory Notices	Other Notices	
				Written	Verbal
British vessels	711	111	—	5	106
Foreign vessels	1329	138	—	6	132
<i>Summary of defects</i>				<i>British</i>	<i>Foreign</i>
Evidence of cockroaches or weevils .....				65	103
Accommodation and fittings in dirty or defective condition .....				2	4
Washplaces and fittings dirty and defective .....				—	3
Drainage defective .....				—	2
Sanitary accommodation and fittings dirty and defective .....				6	16
Food compartments and fittings dirty and defective .....				48	35
Accumulation of refuse on deck .....				6	8
Water fittings dirty .....				—	1
Water tank leaking .....				—	1
W.C. fouling quay .....				2	6
				129	179

166 defects were remedied during the year, of which 87 were reported prior to 1973.

## VESSELS INSPECTED BY THE PORT HEALTH INSPECTORS

		1973	1972
Vessels entering the port .....	{ foreign .. coastwise ..	2,388 2,788	2,498 1,915
Total ....		5,176	4,413
Number inspected .....		2,040	2,595
Percentage inspected .....	{ foreign and coastwise	39.41%	58.80%
Number reported defective .....		249	265
Number on which defects remedied		141	143

The work of the port health inspectors at different parts of the port is indicated by the following statement of the number of vessels inspected and the number found with defects:—

Section A (Manchester—Latchford):	Inspected	Defective
Manchester, Salford and Stretford ..	660	93
Mode Wheel Oil Wharf .. .. ..	28	5
Weaste .. .. .. .. ..	36	2
Brown and Polson's Wharf .. ..	45	12
Irwell Park Wharf and Eccles .. ..	52	12
Barton .. .. .. .. ..	28	3
Partington .. .. .. .. ..	109	18
	958	145
	—	—

Section B (Latchford—Eastham):	Inspected	Defective
Runcorn .. .. .. .. ..	256	27
Weston Point .. .. .. ..	175	7
Weston Marsh Lock .. .. ..	1	—
Ince .. .. .. .. ..	101	8
Stanlow Oil Dock and Lay-Bye ..	138	16
Associated Octel Wharf .. .. ..	13	—
Ellesmere Port .. .. .. ..	184	17
Bowater's Wharf .. .. .. ..	48	3
Eastham .. .. .. .. ..	1	—
Queen Elizabeth II Dock, Eastham ..	164	26
Northwich .. .. .. .. ..	1	—
	1082	104
Gross Totals	2040	249
	—	—

In the Manchester-Latchford section there was a decrease of 193 inspections over the previous year, and in the Latchford-Eastham section a decrease of 362 was recorded.

Nationalities of the vessels inspected and the number found with defects:—

	<i>Inspected</i>	<i>Defective</i>
British .. .. .. .. .. .. .. ..	711	111
Austrian .. .. .. .. .. .. .. ..	1	—
Belgian .. .. .. .. .. .. .. ..	14	—
Cyprian .. .. .. .. .. .. .. ..	37	12
Danish .. .. .. .. .. .. .. ..	109	8
Dutch .. .. .. .. .. .. .. ..	259	21
Egyptian .. .. .. .. .. .. .. ..	4	1
Eireann .. .. .. .. .. .. .. ..	11	2
Finnish .. .. .. .. .. .. .. ..	27	1
French .. .. .. .. .. .. .. ..	12	1
German .. .. .. .. .. .. .. ..	228	10
Greek .. .. .. .. .. .. .. ..	67	23
Icelandic .. .. .. .. .. .. .. ..	9	1
Indian .. .. .. .. .. .. .. ..	1	1
Italian .. .. .. .. .. .. .. ..	16	6
Liberian .. .. .. .. .. .. .. ..	82	23
Malayan .. .. .. .. .. .. .. ..	2	—
Monaco .. .. .. .. .. .. .. ..	4	—
Norwegian .. .. .. .. .. .. .. ..	157	4
Panamanian .. .. .. .. .. .. .. ..	26	8
Philippine .. .. .. .. .. .. .. ..	1	—
Polish .. .. .. .. .. .. .. ..	54	9
Portuguese .. .. .. .. .. .. .. ..	2	—
Roumanian .. .. .. .. .. .. .. ..	11	—
Russian .. .. .. .. .. .. .. ..	59	—
Singapore .. .. .. .. .. .. .. ..	11	1
Somali .. .. .. .. .. .. .. ..	3	—
Spanish .. .. .. .. .. .. .. ..	13	—
Swedish .. .. .. .. .. .. .. ..	85	4
Yugoslavian .. .. .. .. .. .. .. ..	24	2
	—	—
	2040	249
	—	—

266 re-visits were made to vessels regarding defects and sickness.

## Number of personnel carried on vessels inspected:—

British:

European	..	..	..	..	..	..	..	14,110
Asiatic	..	..	..	..	..	..	..	1,756
<hr/>								
Austrian	..	..	..	..	..	..	..	15,866
Belgian	..	..	..	..	..	..	..	7
Chinese	..	..	..	..	..	..	..	392
Cyprian	..	..	..	..	..	..	..	293
Danish	..	..	..	..	..	..	..	559
Dutch	..	..	..	..	..	..	..	1,047
Egyptian	..	..	..	..	..	..	..	3,728
Eireann	..	..	..	..	..	..	..	130
Finnish	..	..	..	..	..	..	..	70
French	..	..	..	..	..	..	..	645
German	..	..	..	..	..	..	..	153
Greek	..	..	..	..	..	..	..	2,233
Icelandic	..	..	..	..	..	..	..	2,107
Indian	..	..	..	..	..	..	..	111
Italian	..	..	..	..	..	..	..	62
Liberian	..	..	..	..	..	..	..	408
Malayan	..	..	..	..	..	..	..	2,352
Monaco	..	..	..	..	..	..	..	20
Norwegian	..	..	..	..	..	..	..	59
Panamanian	..	..	..	..	..	..	..	2,711
Philippine	..	..	..	..	..	..	..	509
Polish	..	..	..	..	..	..	..	20
Portuguese	..	..	..	..	..	..	..	1,496
Roumanian	..	..	..	..	..	..	..	55
Russian	..	..	..	..	..	..	..	369
Singapore	..	..	..	..	..	..	..	1,640
Somali	..	..	..	..	..	..	..	130
Spanish	..	..	..	..	..	..	..	56
Swedish	..	..	..	..	..	..	..	238
Yugoslavian	..	..	..	..	..	..	..	1,758
								663
<hr/>								
								39,887

SECTION XIV: Public Health (Shell-fish) Regulations,  
1934 and 1948

No change.

**SECTION XV: Medical inspection of aliens and Commonwealth immigrants**

No change.

**SECTION XVI: Miscellaneous**

*Arrangements for the burial on shore of persons who have died on board ship from infectious disease.*

No change.

**MISUSE OF DRUGS REGULATIONS, 1973**

**DANGEROUS DRUGS (No. 2) REGULATIONS, 1964**

One certificate was issued under these regulations to the master of a foreign vessel.

**CLEAN AIR ACT, 1956**

**DARK SMOKE (PERMITTED PERIODS) (VESSELS)  
REGULATIONS, 1958**

The port health inspectors continued to keep a close watch on emissions of smoke from vessels. Proceedings were taken in respect of two contraventions by the Greek vessel *Demosthenes V* at the Queen Elizabeth II Dock, and the maximum fine of £100 was imposed in respect of each offence. In explaining the master's position, the representative of the defendants stated that the smoke was the result of discharge of the oil cargo falling behind the contractual period for delivery and the need to use a bigger burner in the boiler in an effort to increase the pumping rate.

Owners and masters were invariably most anxious to co-operate in doing all possible to prevent smoke emission. Twenty visits and "timed" observations were made in the Manchester-Latchford section of the canal, whilst a further 26 visits were made and observations taken between Latchford and Eastham, including the Queen Elizabeth II Dock. Seventeen written and 15 verbal notices were given, 15 in respect of smoke from British vessels and 17 from foreign ships.

Testing of boiler safety valves aboard the m.v. *Cecilie Brovig* was abandoned after the attention of the master had been brought to the considerable smoke nuisance this was causing. The need of the Manchester Ship Canal Company to comply with the Clean Air Act was brought to their attention. As a result of discussions between our officers it has been agreed that they will convert the Sixty-ton floating crane from coal, and fully modulating rotary cup burners using 35 sec gas oil will be fitted. With the use of forced draught this should enable the craft to operate without causing excess smoke.

## RADIOACTIVE MATERIALS

Arrangements have been made with the harbour master for this Authority to be informed whenever radioactive materials are arriving in, or departing from, the port and details of each consignment are submitted so that the adequacy of any required safety measures can be confirmed. Notification was received in respect of 24 such shipments.

## FOOD INSPECTION

### Report of the Chief Port Health Inspector.

#### **Imported Food Regulations, 1968-73**

The Imported Food Regulations regulate the control of food coming into the country and govern the examination of container traffic. The principal ports in this country are expected to provide adequate facilities for the inspection of container traffic and are not encouraged to defer this examination until the container reaches its destination.

The port health inspectors have increased the number of containers selected for examination in the port, and this has helped to make a significant reduction in the number of deferred examinations and in the consequential administrative work. In cases where it is not expedient, due to the inadequacy of the available facilities, to carry out a complete inspection, deferred examination of the consignment is arranged. This procedure has enabled the Authority, in conjunction with other ports, to monitor the wholesomeness of imported food and to bring to the notice of local authority inspectors those containers requiring particular attention. This has resulted in an increase in the number of samples sent to the public analyst; adverse reports were received in respect of 10% of those submitted for examination.

Sampling of tomato juice has revealed two brands with a high Howard mould count, indicative of a product made from unsound fruit. Subsequent consignments of these brands have been detained and unsatisfactory consignments rejected.

A consignment of 610 cartons Australian boneless mutton was landed in the terminal docks from the m.v. *Newfoundland*. On examination it was found to have been consigned to Provisioners Maritimes Ltd., Halifax, N.S., subsequently the importer produced an inspection report from the Canadian Department of Agriculture, which indicated that the meat had been refused entry as the product was contaminated with dust and rail dirt.

Having regard to the concern expressed earlier this year by the Ministry of Agriculture, Fisheries and Food about the importation of Australian meat which had been rejected by other authorities, it was decided to detain the consignment and make a thorough examination. As there are no facilities available in the Port of Manchester for such an examination, the importer was allowed to move the consignment, under detention, to Trafford Park Cold Stores.

Sixty cartons were thawed out and on inspection found to contain quantities of scrap meat and trimmings. As only the importation of recognisable wholesale and retail cuts is permitted, and the consignment had been rejected in Canada, it was decided to issue a re-exportation notice, and the consignment was released for shipment to Greece.

A consignment of canned soft cod roe, ex m.v. *Hannelore*, was landed at Weston Point; on examination there was found to be a strong smell of stale fish. Samples were taken for bacteriological examination and chemical analysis; no pathogenic organisms were found but analysis revealed a high volatile base content. The importers representative together with two representatives of the Norwegian canners agreed that the consignment was unsound and it was returned to Norway.

Turkish tomato puree landed at Weston Point from the vessels *Gerda Smits* and *Swindregt* resulted in the seizure of 11,364 unsound 5 kilo cans. The importers provided all the assistance necessary to carry out this examination; approximately 56 tons were surrendered for destruction and buried at Warrington Corporation tip.

5,944 boxes of shelled walnut kernels were found to be infested with warehouse moth. The importers agreed to cleanse the nuts, after fumigation, under the supervision of the local health authorities who willingly co-operated in this matter.

A fire took place amongst some cotton aboard the vessel *Trader*; investigation revealed that the ship's personnel had fought the fire with their own equipment until the arrival of the fire brigade. This resulted in the contamination of part of a consignment of rice with dock water which is polluted to such an extent that all the damaged bags had to be seized as unfit for human consumption.

#### **Food Hygiene (Docks, Carriers, etc.) Regulations, 1960.**

Regular inspections are made to ensure that sheds and equipment are kept in a clean condition and that food is handled in a hygienic manner. Deficiencies have been reported to the responsible managements as a result of which the defects have been remedied.

### Food Hygiene (General) Regulations, 1970

A former Solent passenger vessel was moored in Pomona Docks and converted into a floating restaurant. During the conversion the proprietor was advised of the structural requirements of the regulations and all the work required by the Authority was carried out satisfactorily.

### CONTAINER TRAFFIC

	No. discharged	To inland destinations	Examined on docks	Unexamined Notices posted to L.A.s
1973				
Terminal Docks	6,914	2,760	234	1,368
Weston Point/Runcorn	783	311	49	43
Ellesmere Port	3,003	2,228	118	929
1972				
Terminal Docks	8,504	8,403	101	3,058
Weston Point/Runcorn	989	915	74	324
Ellesmere Port	625	625	—	276
1971				
Terminal Docks	6,522	6,417	105	1,986
Weston Point/Runcorn	1,625	1,396	229	1,190
Ellesmere Port	—	—	—	—
1970				
Terminal Docks	5,132	4,978	154	1,104
Weston Point/Runcorn	1,200	1,136	64	645
Ellesmere Port	—	—	—	—

### Results of inspection

#### Details of food imports which were seized as unsound

Articles	Tonnes	Kilos	Grams
Grain, cereals, etc.			
Maize starch .. .. .. .. ..	255	0	
Rice .. .. .. .. ..	490	0	
Wheat .. .. .. .. ..	250	0	
Sweet corn (canned) .. .. .. ..	82	870	
Fruit and nuts			
Cherries in SO <sub>2</sub> .. .. .. .. ..	1	152	0
Canned fruit .. .. .. .. ..	7	121	165
Canned fruit juice .. .. .. .. ..	9	728	985
Canned fruit pulp .. .. .. .. ..	18	30	
Concentrated fruit pulp .. .. .. .. ..	180	0	
Walnuts in brine .. .. .. .. ..	159	0	
Melons .. .. .. .. ..	396	0	
Grapefruit .. .. .. .. ..	60	0	
Raisins .. .. .. .. ..	288	0	
Oranges .. .. .. .. ..	60	0	
Desiccated coconut .. .. .. .. ..	494	0	
Nuts .. .. .. .. ..	130	500	
Lemon Juice (from barrel) .. .. .. .. ..	140	0	
Stuffed olives .. .. .. .. ..	75	0	

Fish								
Canned fish	.. .. .. .. ..	2	293	511				
Vegetables								
Canned vegetables	.. .. .. ..	1	51	625				
Beans	.. .. .. ..		680	390				
Potatoes	.. .. .. ..	26	290	231				
Vegetables in brine	.. .. .. ..	3	252	20				
Edible oils and fats								
Lard	.. .. .. ..	27	639	174				
Meat								
Boneless mutton	.. .. .. ..	16	601	492				
Miscellaneous								
Coffee beans	.. .. .. ..	2	140	500				
Cocoa beans	.. .. .. ..		753	0				
Bread improver	.. .. .. ..		203	210				
Mushrooms (canned)	.. .. .. ..		18	597				
Tomatoes (canned)	.. .. .. ..		36	465				
Tomato puree (canned)	.. .. .. ..	68	183	356				
Pickles	.. .. .. ..	1	838	824				
Root ginger	.. .. .. ..	4	500	0				
Savoury jelly powder	.. .. .. ..		6	350				
Warian	.. .. .. ..		300	0				
Tomato juice (canned)	.. .. .. ..	17	5	0				
Plastic Fruits—Candy filled	.. .. .. ..		544	312				
Topping	.. .. .. .. ..		20	410				
		418	439	17				

## LABORATORY EXAMINATIONS

Number of samples examined by:

- (a) Public Analyst ..... 197
- (b) Microbiologist ..... 58

## Results of samples submitted to the Public Analyst

<i>Nature of sample</i>	<i>Satisfactory</i>	<i>Unsatisfactory</i>	<i>Remarks</i>
Ground coffee .....	1*	—	*Incorrect weight declared
Soft drinks and fruit juices .....	7	—	—
Tomato juice .....	16	11	Excess Howard mould count
Canned fish .....	9	2	1 total volatile base indicating staleness or decomposition 1 excess lead
Frozen and dried sea foods .....	3	—	—
Canned meat .....	3	—	—
Honey and syrups .....	9*	—	*1 sample a mixture of starch and honey not properly described.
Topping .....	—	2	Prohibited preservatives
Confectionery .....	4	3	Prohibited colouring matter
Fats and oils .....	8	—	—
Pickles and sauces .....	20	4	3 samples excess lead, 1 sample prohibited preservative.
Spices and seasoning .....	6	—	—
Flour .....	2	1	Deficient in chalk
Pasta, papadams and cereal products .....	6	—	—
Tomato paste .....	19	—	—
Canned fruit .....	20	—	—
Canned vegetables .....	13	—	—
Dried and preserved fruit and vegetables .....	19*	—	*2 boxes dried fruit incorrectly labelled
Fresh apples .....	1	—	—
Nuts .....	3	—	—
Glycerol monostearate ..	1	—	—
Wip treme .....	1	—	—
Achiote seeds .....	1	—	—
Fruit cake .....	1	—	—
Lemon juice powder .....	1	—	—

## Results of samples submitted for microbiological examination

<i>Nature of sample</i>	<i>No.</i>	<i>Organisms isolated</i>
Canned tomato paste .....	2	1 aerobic spore bearing bacilli 1 lactobacilli
Pasta .....	1	Coliform (not E. coli)
Quick frozen scallop .....	1	Marine vibrio
Frozen lobster .....	1	Staph. aureus
Frozen canned lobster meat .....	1	Staph. aureus
Frozen cooked shrimps .....	1	Marine vibrio

Examinations giving negative results:—

Pasta 13, Flake egg albumen 5, canned corned beef 3, frozen boneless mutton 6, salad dressing 1, frozen lobster 6, herring milts 4, scallops 5, shrimps 4, Bombay duck (bummaloe fish) 1, canned soft cod roe 3.

## REPORT OF THE PUBLIC ANALYST

A total of 209 samples was examined during the year made up of 10 samples of ships' drinking water, two other water samples and 197 food samples. These included 19 samples of tomato paste and 27 samples of tomato juice.

In the general foodstuffs canned fruit products, vegetables and pickles predominated but there were a number of more exotic items of Asian origin. Adverse reports were given of 25 samples. Three samples of Indian pickle contained lead in excess of the general limit of 2 parts per million laid down in the Lead in Food Regulations and a fourth sample contained 1500 parts per million of benzoic acid which is a preservative not permitted for use in pickles. Three samples of sugar confectionery contained the artificial colour Brilliant Blue F.C.F. which is not included as a permitted colour in the Colouring Matter in Food Regulations. Two samples of syrup topping contained sorbic acid contrary to the Preservative in Food Regulations. Eleven samples of tomato juice contained mould in excess of the recommended maximum of 25 per cent positive fields. A sample labelled granulated honey contained about 33 per cent of starch and three samples of gherkins in brine contained very flourishing colonies of yeast. Finally a sample of canned anchovies contained 7 parts per million of lead.

A number of samples was pre-packed for retail sale and on three occasions labelling irregularities were found. These irregularities would only represent an offence against the Labelling Regulations when the products were offered for sale. Nevertheless they were noted in the reports so that the importers could be warned and take suitable action to correct the labels.

The 19 samples of tomato paste represented eleven consignments from Mexico, Israel, Greece, Turkey and Portugal. These were examined for mould content using the Howard Mould Count technique. The maximum limit for this count is 50 per cent positive fields; all consignments complied with this limit, the overall average mould count for all samples examined being 23 per cent positive fields.

The 27 samples of tomato juice represented 20 consignments all from Israel. When examined for mould content five consignments were above the recommended limit of 25 per cent positive fields, the overall average mould count for all samples was 21 per cent positive fields.







